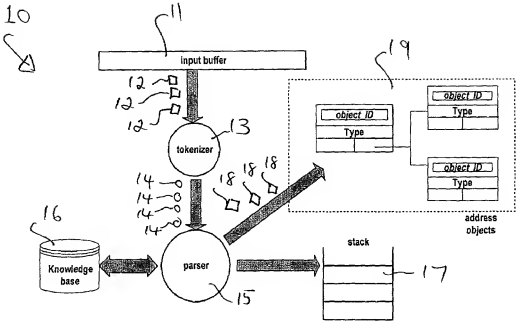

Figure 1. The conceptual parsing architecture.

Input buffer: the data structure that contains the character string to be parsed. We assume the characters are encoded by UNICODE.

FIG. 1

Microsoft Exhibit 1006

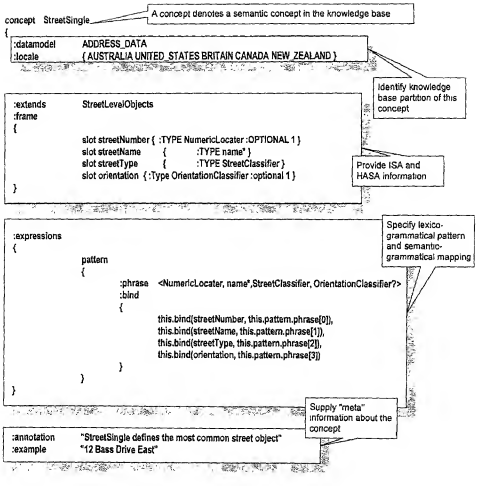

FIG. 2

10150-2742860

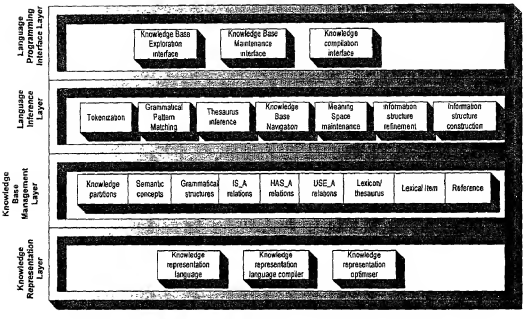

FIG. 3

EP 0 651 336 A1

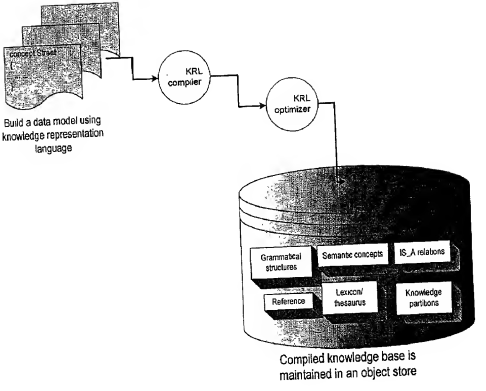

FIG. 4

10/5/01 3:27:39 PM

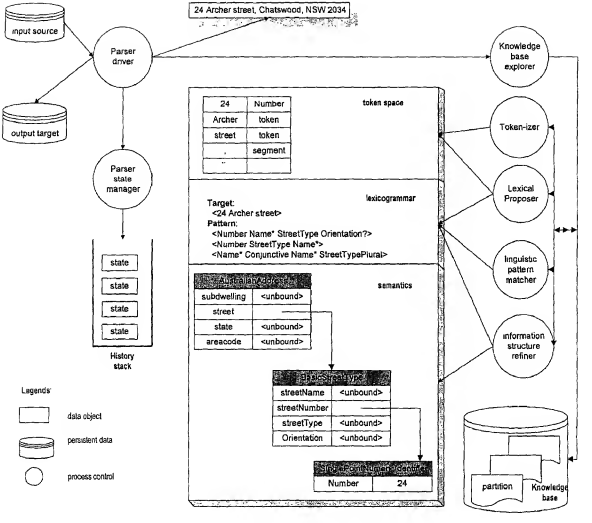
input source
output target
Parser driver
24 Archer street, Chatswood, NSW 2034
Knowledge base explorer
Parser state manager
state
state
state
state
History stack
24 Number
Archer token
street token
segment
token space
Token-izer
Target:
<24 Archer street>
Pattern:
<Number Name* StreetType Orientation?>
<Number StreetType Name*>
<Name* Conjunctive Name* StreetTypePlural>
lexicogrammar
Lexical Proposer
Linguistic pattern matcher
subdwelling <unbound>
street
state <unbound>
areacode <unbound>
semantics
information structure refiner
streetName <unbound>
streetNumber
streetType <unbound>
Orientation <unbound>
Number 24
partition
Knowledge base
Legend:
data object
persistent data
process control

FIG. 5

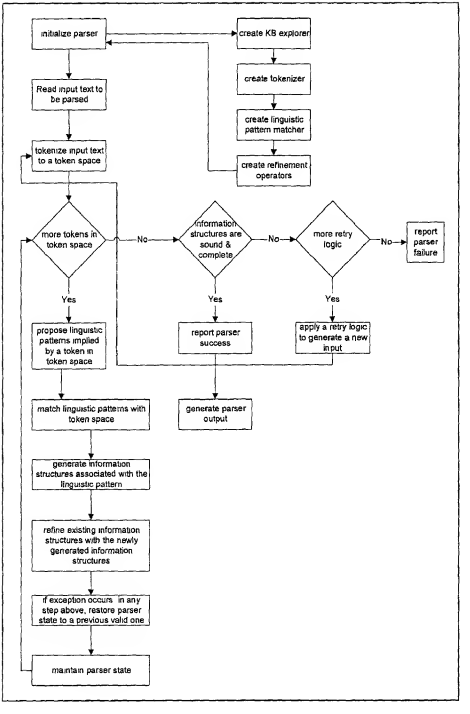

FIG. 6

TOSHIBA 21886D

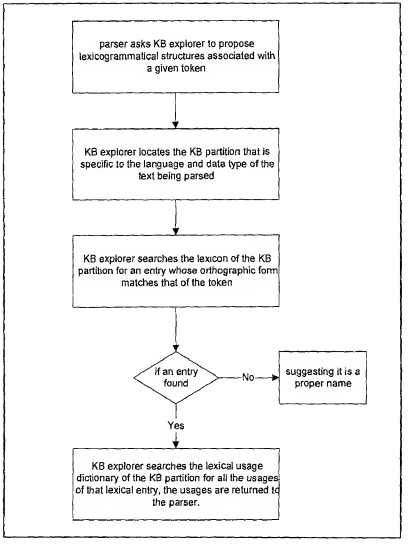

FIG. 7

TS90-E4E8D

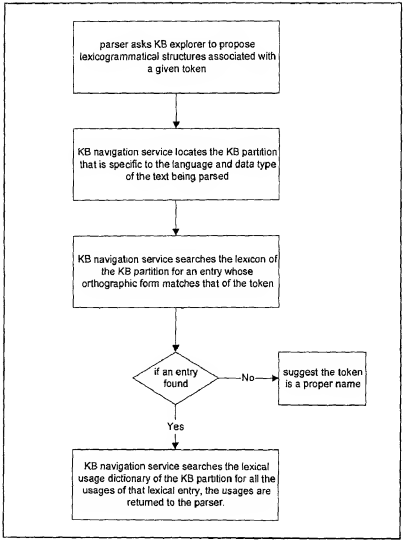

FIG. 8

10/30/2013 09:13:39

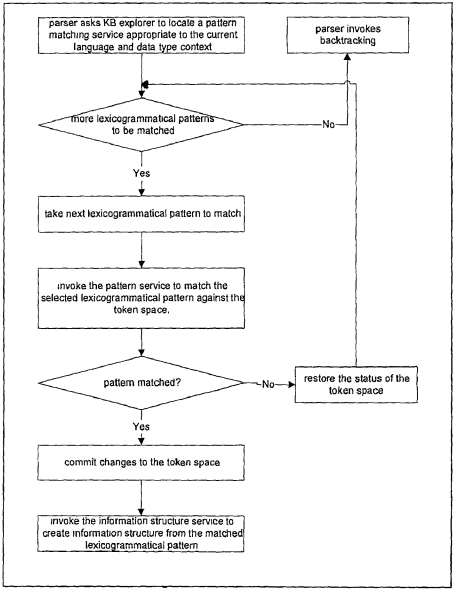

FIG. 9

US 7,124,080 B2

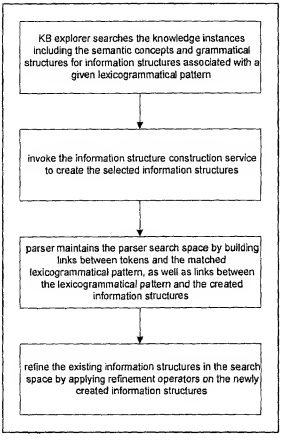

FIG. 10

Tostan "0613213 0989

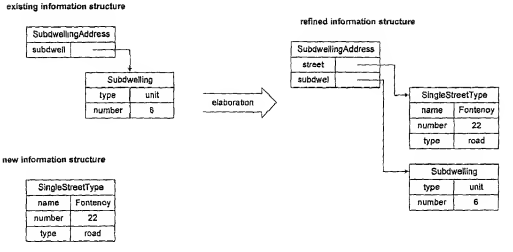

FIG. 11

10/2005

Example addres. *Fontenoy road and Curzon street, . . .*

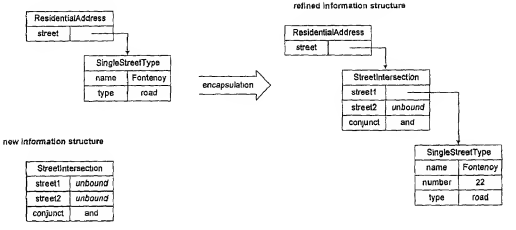

FIG. 12

TOYOTA 10170 Patented

Example addres *22 Fontenoy road, Ryde, NSW 2113*

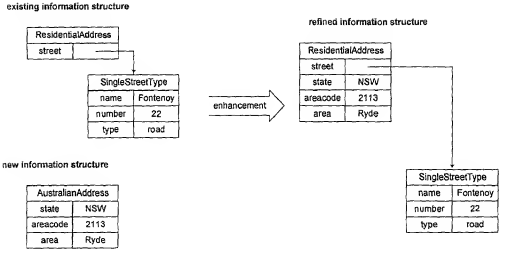

FIG. 13

WO 2015/051423 PCT/AU2014/050015

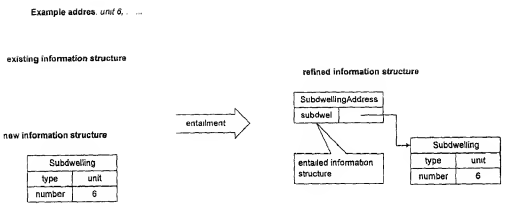

FIG. 14

D9831320.05504

Example addres: *Dept. of computer science, school of engineering, Univ. of Sydney, ...*

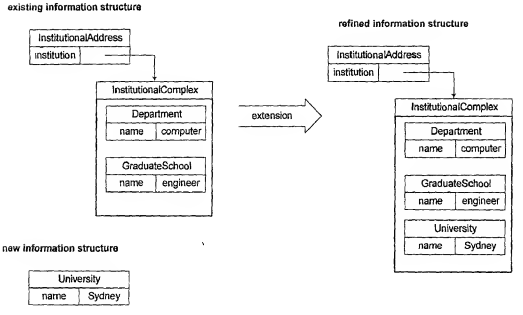

FIG. 15

US 2007/0276860 A1

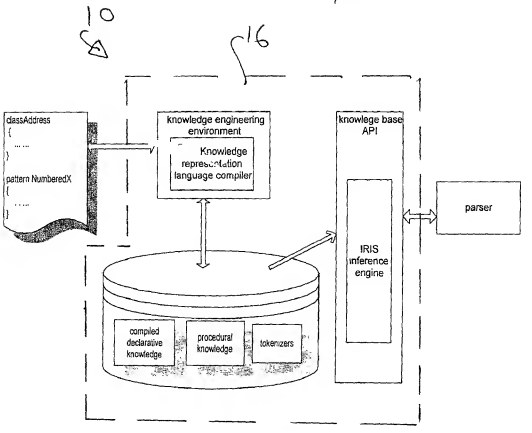

FIG. 16

TOSTO-27206D

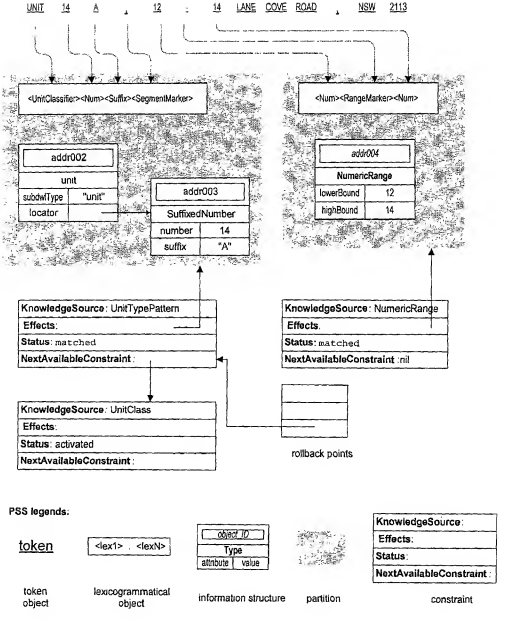
UNIT 14 A , 12 : 14 LANE COVE ROAD , NSW 2113
<UnitClassifier><Num><Suffix><SegmentMarker>
addr002
unit
subdivType "unit"
locator
addr003
SuffixedNumber
number 14
suffix "A"
<Num><RangeMarker><Num>
addr004
NumericRange
lowerBound 12
highBound 14
KnowledgeSource: UnitTypePattern
Effects:
Status: matched
NextAvailableConstraint:
KnowledgeSource: NumericRange
Effects:
Status: matched
NextAvailableConstraint: nil
KnowledgeSource: UnitClass
Effects:
Status: activated
NextAvailableConstraint:
rollback points
PSS legends:
token
<lex1> . <lexN>
object ID
Type
attribute value
KnowledgeSource:
Effects:
Status:
NextAvailableConstraint:
token object
lexicogrammatical object
information structure
partition
constraint

FIG. 17

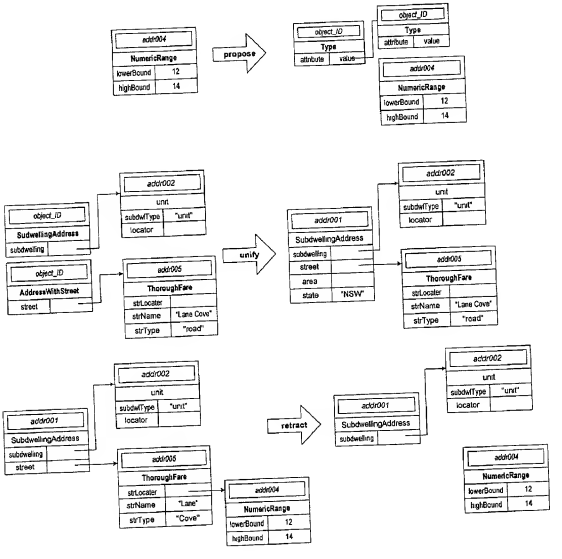
addr004
NumericRange
lowerBound 12
highBound 14
propose
object_ID
Type
attribute value
addr004
NumericRange
lowerBound 12
highBound 14
object_ID
SubdwellingAddress
subdwelling
object_ID
AddressWithStreet
street
addr002
unit
subdwType "unit"
locator
addr005
ThoroughFare
strLocator
strName "Lane Cove"
strType "road"
unify
addr001
SubdwellingAddress
subdwelling
street
area
state "NSW"
addr002
unit
subdwType "unit"
locator
addr005
ThoroughFare
strLocator
strName "Lane Cove"
strType "road"
addr001
SubdwellingAddress
subdwelling
street
addr002
unit
subdwType "unit"
locator
addr005
ThoroughFare
strLocator
strName "Lane"
strType "Cove"
addr004
NumericRange
lowerBound 12
highBound 14
retract
addr001
SubdwellingAddress
subdwelling
addr002
unit
subdwType "unit"
locator
addr004
NumericRange
lowerBound 12
highBound 14

FIG. 18

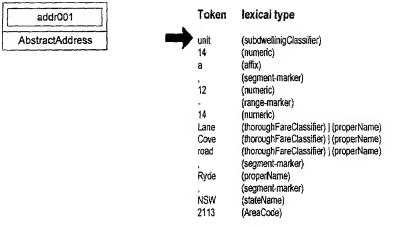

Figure 19.1 Initial state of parsing.

FIG. 19.1

P0719D-AU-2008201360

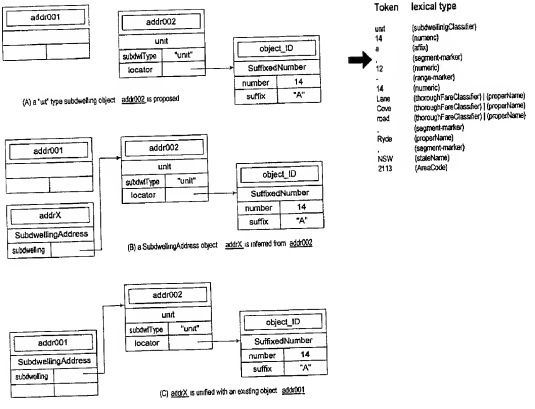

Figure 19.2. Address objects built after parsing "unit 14A".

FIG. 19.2

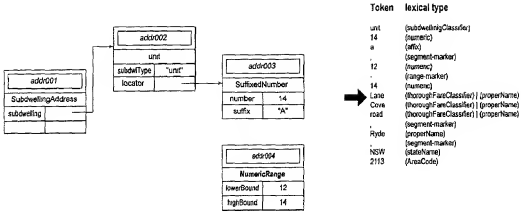

Figure 19.3. Temporary information structure held in stack.

FIG. 19.3

09821234-062501

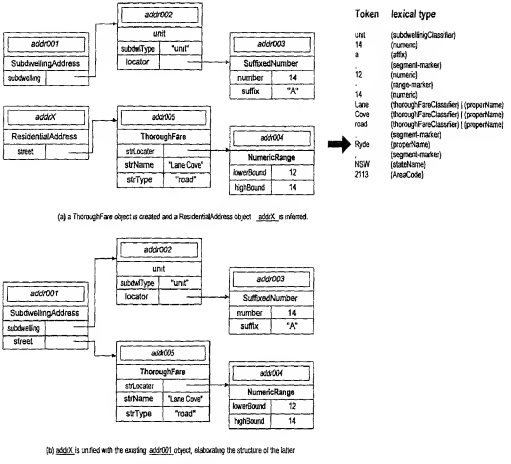

Figure 19.4. Information structure obtained after parsing "12-14 Lane Cove Road".

FIG. 19.4

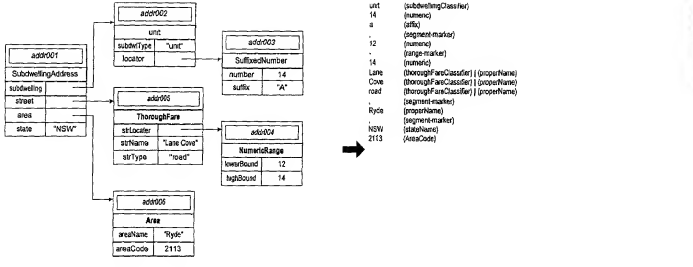

Figure 19.5. The final address information structure.

FIG. 19.5

Patent Pending